



### Manufacturing Division



### Service Section



## VASALS ENGINEERING INDUSTRIES

No. 33, Goverdhan Garden,  
Next to J. C. Industrial Area, Yelachenahalli, Kanakapura Road,  
Bangalore - 560 062, Phone: 080-65902736, 26664522,  
Fax : 080-26665701, Email : [vasals@yahoo.com](mailto:vasals@yahoo.com),  
[vasals@sify.com](mailto:vasals@sify.com), Website : [www.vasals.com](http://www.vasals.com)

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Serving Industries over 45 years



## VASALS ENGINEERING INDUSTRIES

Magnetising, Demagnetising, Work Holding Solutions, Inspection /  
Calibration and Special Purpose Machines



**NABL Accredited Laboratory No C-0445**

Established in 1969, **Vasals** is one of the leading company to undertake Sales / Service and Calibration of Measuring Instruments, Magnetic devices and Gauges.

**Vasals** undertakes **Sales / Service / Calibration / Inspection** of all types of Linear **Mechanical Measuring Instruments / Gauges** and tool room aids like Vernier Calipers / Dial / Digital, Micrometers, Internal / External, Dial Indicators, Lever Type / Plunger Type, Millimess, Supramess, Vernier Depth Gauges, Vernier Height Gauges, Height Masters, Gauges (All types), Pressure / Vacuum Gauges, Surface Plates, Angle Plates, Hand Torque Tools (All types), Mandrels, V Blocks, Sine Tables, Bench Centers, Microscopes, Profile Projectors, Video Vision, pressure gauges, surface roughness, magnetic lifters, etc.,

The **Service Center and Metrology Laboratory** is handled by professionally qualified people with Traceable Master Equipment's at Standard Environmental conditions.

**Vasals** also undertakes third party inspection.



**NABL Accreditation in the field of Mechanical / Torque as per Standard, ISO/IEC 17025.**

We are in this line of activity for the past 45 years serving Small, Medium and Multinational Companies.

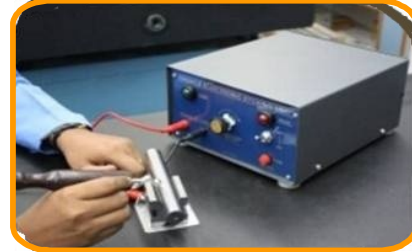
#### **Manufacturing Activities**

**Vasals** also into Manufacturing activities of Special Purpose Machines for example Run Out Checking Machine, Squareness Checking Machine, Scale Calibrator, Lapping Machine, Magnetic Separators, Suspended Magnets, Gear Checking, Customised Work Holding Devices, Pulsating Demagnetisers, Conveyor Assembly for Demagnetisers, Customised Magnetisers etc.

**Vasals is committed to Good Professional practice, Product and Service Quality, To meet Customers requirements.**

**Vasals** has representatives and Collection Centers in **Chennai, Coimbatore, Hosur, Mysore, Pune** areas.

## **Electronic Etching Unit**



### **What is Etching?**

A device for marking on all Ferrous and Non Ferrous (Conductivity Metals) By instant, permanent electro-etching process. Best for Hardened & Ground Surfaces.

### **Features:**

You can write on any conductivity metals without any ink. Harder the metal better the Etching with electronic regulator to suit different depth of Etching.

### **Specification:**

Input-230 Main Volts AC, Duty-continuous, Permanent Marking, Supplied with special writing pins, Safety features with earthing, fuse, light indicators for mains and load.

### **How to use?**

Just plug in and switch on the Etching unit 230 Volts Mains AC, Select the regulator, Keep the component on the earth plate. Start writing by given electric pencil on the component. Increase or decrease the regulator for required etching.

### **Application:**

For Tools, Punches, Dies, Machine Tools, Components, Cutting Tools, Jigs and Fixtures, Gauges or Measuring Instruments, Rejected Components for identification, numbering of dissambled details to facilitate assembly.

### **DIFFERENCE:**

- No force while etching
- No strain in writing
- No ink or acid required
- Instant etching
- Writing Pins can be replaced / Sharpened
- No restrictions on style and size
- All electrical safety provided like over load fuse, earthing etc.
- Supplied with carry bag for easy movement.

**A MUST FOR ALL ENGINEERING TOOL ROOMS, Manufacturing Industries etc .,**

## DEMAGNETISING WORRIES



**VASALS** has a solution for each and every demagnetizing issues.

**VASALS** is the first Company in INDIA to develop and solve many **Demagnetising issue** related problems to many Industries from Automobiles Manufacturing Industries, Tool Rooms, Assembly plants, food industries,

Having a expert team of Mechanical, Electrical , Electronics, Our Research and Development team has been successful in giving a solution and the best possible Machine to the customer to meet the specified

**VASALS** has developed many **Demagnetisers** like, **Pulsating demagnetisers**, **Platen type demagnetisers**, **Tunnel type demagnetisers**, **Hand held demagnetisers**, **On line demagnetisers**, **Off line demagnetisers**, **Demag with belt conveyor**, **Hi—frequency demagnetisers**, **Co-Axial Coil demagnetisers**, **A.C. Demagnetisers**, **D.C Demagnetisers**, and **Many more**.

We have successfully developed for the following components / items.

**Chassis, crankshafts, axel beam, all types of bearings, valve seating rings, gauges, all types of gears, electronic industries and many more.**

**Contact us for all your Demagnetising problems.**

**Vasals** has a solution and product for your requirement.

## Types of Demagnetisers



Micro controlled based Demagnetiser



Demagnetiser with chute



Platen Demagnetiser



Hi Frequency Demagnetiser



Aperture Demagnetiser



Adjustable Demagnetiser



Twin Demagnetiser

## Pulsating Demagnetisers



**PULSATING DEMAGNETISER WITH CONVEYOR**  
( Best suited for bearing industries )

**VASALS** presents. Very high precision and effective **VASALS ELECTRONIC PULSATING DEMAGNETISERS** from INDIA. Bangalore.

**Vasals** has developed and proven in many factories in India, This Electronic Pulsating Demagnetiser is very high precision & effective for use in the manufacture of industrial components, Usually many components / products need to be magnetised for a specific process and then to be demagnetised before being put into actual use, Otherwise, they are likely to gather metal particle dirt, or suffer from the effects of magnetism. The magnetism is needed to be removed either totally, or at least to a minimum acceptable level of the residual magnetism. Reverse pulses applied to remove the residual magnetism. Standard demagnetisers themselves consume a lot of energy in the above process, and still do not deliver the product demagnetised to a satisfactory level.

## Pulsating Demagnetisers

The research work done by **Vasals** team, In this area **Vasals** has resulted in achieving an excellent quality of minimum residual magnetism after Demagnetisation.

The average energy consumption is only 130 watts, as compared to that many times by others manufacturers ( 2 kW or more ). So, the consumption is 25 to 35 times less. Thanks to the above Power saving technology and widely accepted by many Industries,

**Vasals** Demagnetisers pay back for themselves in a few years. The demagnetising values repeatability is the highest, with almost zero maintenance.

**Vasals** Pulsating Demagnetisers can be supplied for in - line operation and On - line where the flow continues.

These are highly reliable and durable products, and have started reaching Many factories in India and proved in many Industries. There are several models to cover small components to very large.

**The applications are unlimited.**

**For example: the manufacture of ball-bearings; roller-bearings; taper-roller bearings; camshafts; wheel hubs; driven shafts; flywheels; fuel rails; crankshafts, connecting rods; valves; injectors (assembled) or injector-parts; piston-pins; piston-rings, pinions, spindles, gears etc.**

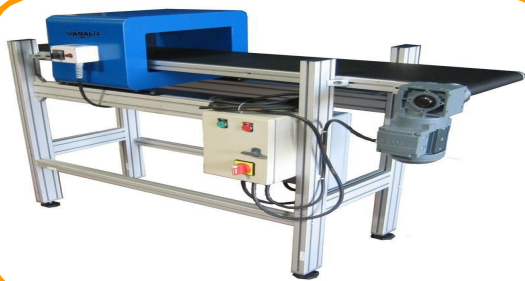
## Different types of Demagnetisers



On line Demagnetiser with Conveyor



Hi Frequency Demagnetiser with Belt Conveyor



Tunnel Demagnetiser with Conveyor



Hand Held Demagnetiser for on job Demagnetising  
(Recondition of all Magnetic devices are under taken)

## Magnetic Devices



High Power Magnetic Chuck



Electro Magnetic Chuck



Electro Perm Magnetic Chuck for Milling  
(Suitable for VMC & HMC Machines)

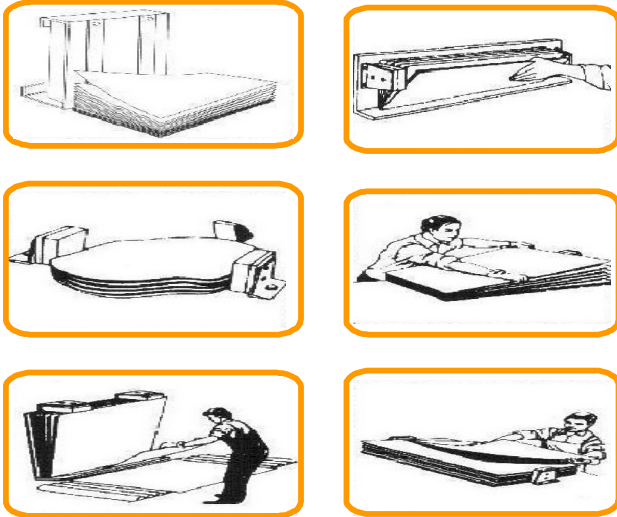


Magnetic Platen for Injection Moulding Machines.



Pulse Tunnel Demag System for Large size  
(Recondition of all Magnetic devices are under taken)

## Magnetic Separators / Floaters



Used for creating gap between thin sheets and hence removing sheets one by one easily from stacks.

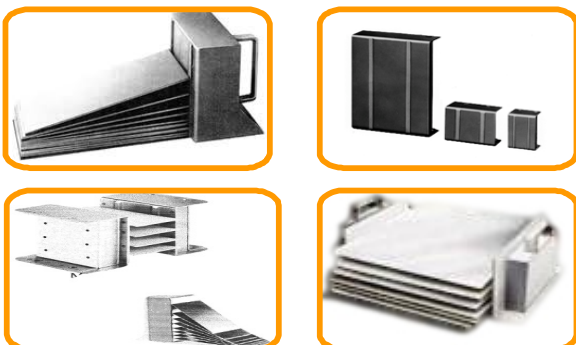
They induce similar pole force to each plate in a stack, there by creating repelling forces in consecutive plates, causing for separation.

Can separate oil stuck sheets or heavily piled-up sheets with less efforts & less time.

Any size & shape of sheets can be separated by using number of floaters at certain interval.

Automation in the above set is possible.

Compact design with strong magnetic field. Can be attached to machine or tighten to table.



10 (Recondition of all Magnetic devices are under taken)

## Magnetic Grills



Magnetic Rollers and Pins

### MAGNETIC GRILLS?

- Over 30 years of expertise in design and manufacturing of Permanent and electro Perm Magnetic Systems.
- Magnet Grills are available with more than 10000 Gauss for operating temperature up to 200°C.
- Customized design and very reasonably priced.
- Easy to clean and no maintenance required.
- Installation of these Magnetic grills improves product quality thereby enhances product value and helps in meeting FDA and other government / Customer regulations on iron contamination levels.
- Services such as magnetic calibration / repairs facilities are available.

(Recondition of all Magnetic devices are under taken)

## Sheet Metal Lifters

**VASALS** Electro Permanent magnetic lifter is used for lifting, loading, unloading of sheet metals, heavy casting, pipes, round jobs, etc  
1: 3 times safety factor of the recommended load to the test load ensures use at optimal working conditions even with substantial air gaps and surface conditions.

Cold device as it does not require power continuously, except for few seconds for activation and deactivation.

Robust design. Compact and economic design, strong magnetic pull, total work safety. Simple and easy operation with pendent with Mag On and Demag On facility. No damage on job during operation. Supplied with third party test report for lifting. All standard electrical and electronics used.



Electro Magnetic Lifters



EPM Sheet Metal Lifters



## Suspended Magnets



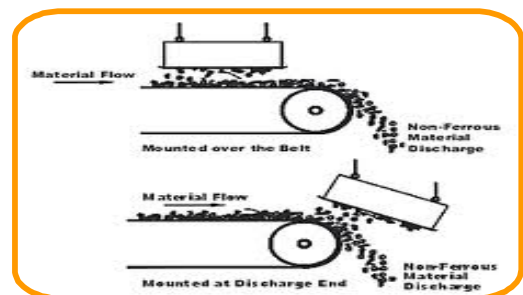
Suspended Magnets for Scrap Yards



Suspended Magnets for Mining Industries



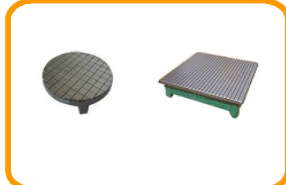
Suspended Magnets for Cement Plants



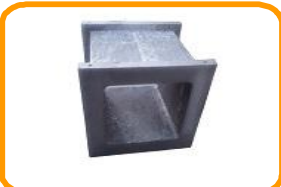
## Box angle and lapping blocks



Cast Iron Base Plates



Cast Iron Lapping Plates



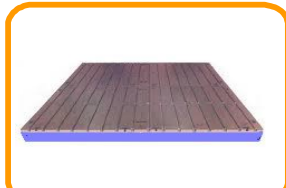
Cast Iron Cubic Block



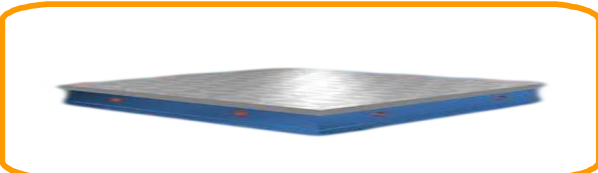
Cast Iron Angle Plates



Cast iron box angle plate



Cast Iron Base for Testing



Cast Iron Base Plate for Assembly Bay

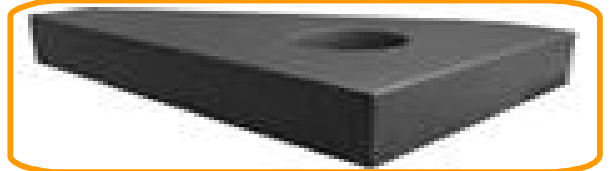


Granite Parallel Blocks  
Surface Plate



Granite Angle Square

## Inspection Equipments



Granite Angle Square up to 1000mm



Floating Carriage Micrometers



High Accuracy Spirit Levels



Residual Field Digital Meters in Gauss / A/cm

## Profile Projectors



Horizontal Machine



Vertical Machine



For Reverse Engineering and Calibration with Software.

## Special Purpose Machines



Magnetic Lifter  
(Permanent/  
Electro/EPM)



Radial Pole Round  
Magnetic Chuck with high  
RPM motor for buffing



Gear Tester

Sr	Part Name
1	Base Circle
2	Straight Edge
3	Knob
4	Knob
5	Knob
6	Knob
7	Knob
8	Lock for 'B' Slide
9	Lock for 'B' Slide
10	Knob
11	Projector
12	Light House
13	Plunger dial for Slide A
14	Lever dial for Slide A
15	Plunger dial for Slide
16	Scale
17	Vernier
18	Dog

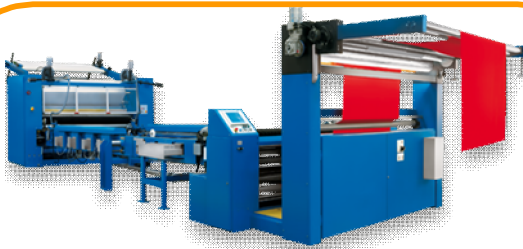
## Technical Textile Machines



Textile Coating Machine



Textile Machine for Fabric



Textile Compacting Machine



Textile Packing Machine

## Special Purpose Machines



**EMRC** (Electrical, Mechanical, Run Out checking Machine)  
**Used for checking Run out for Gear Pinions of Diameter 50 to 1000mm with the following features.**

- High precision Roller Bearing V Blocks are Perfectly matched to have run out of  $\pm 0.002\text{mm}$ , when checked on Surface Plates as well as on pedestals when placed 2 meters apart.
- The flatness of the bed is within  $0.05\text{mm}$  for the entire length of 2.5 Meter as per DIN 8630 Std.
- The total static weight capacity of the E.M.R.C set up is upto 10 Tons.
- The Base frame material is of Cast Iron (FG - 260 Grade)
- Pedestals supporting the Roller bearing V Blocks is M.S.Fabricated, stress relieved, adequately sized and designed to support the weight of the jobs.
- The drive Motor with reducer gearbox is less than 5 RPM.
- The swing over the bed is 2 meters.
- Dial Indicators (Contact or Non contact types) to suite the requirements.
- Chain and Sprocket arrangements are made for Horizontal movement of pedestals on the bed.
- Vertical Jacking systems for Vertical Alignment and a linear scale for measurement of height is provided.
- Arrangement for varying belt tension is provided.
- Clamping arrangements of Roller Bearing V Blocks on the Pedestal are provided.
- This Machine is Customized can be redesigned and modified to suite customers requirements.
- **GEAR MESHING RIG FOR CHECKING MESH OF MATING GEARS Can also be Manufactured.**

### Different types of Hoppers



Hoppers in Brass



Stainless Steel Boilers



Hoppers & Feeders for Pharmaceutical Plants



Stainless Steel Hoppers with SS 316 L Material



Magnetic Separator for Food Industries

### Different types of Feeders



Heavy Duty Vibro and Feeder for Food Industries



Hoppers & Feeders for Agriculture Plants



Paste Filling Machinery with Hopper



Magnetic Separators for Coolant Tanks

## Different types of Conveyors



## Special Purpose Machines



Magnetiser for Magnet Manufacturers



Magnetiser for Automobile Industry

**Vasals** designs and Manufactures impulse or capacitor discharge type magnetizers for isotropic and anisotropic magnets of all sizes and shapes. Magnetisation for in-line and off-line applications for Alnico, Ferrite, Smco and NdFeb Magnets.

Magnetisers for Loudspeaker manufacturers, Motor Industries, Electronic Industries, Magnetic device manufactures, Customised Magnetizers can be manufactured on request.

### Special Purpose Machines



Battery operated Lifter



Battery operated EPM Lifter



Permanent Magnetic

Magnetiser for Electronic Industry



Washing Machines for Components

### Special Purpose Machines



PLC Based Drilling Machines



Automation Machines



Brush Making and Trimming Machine



Customised CNC Mini Lathe

### Special Purpose Machines



Spot Welding Machine for Jewellery Manufacturers



Magnetic Floor Sweepers



Heavy Duty Magnetic Floor Sweepers

### Special Purpose Machines



Filling Machines



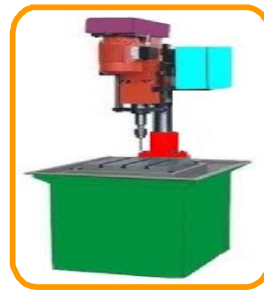
Inspection Fixtures



Polishing Machines



Heavy Duty Magnetic Separator



Hi RPM Drilling Machines with Magnetic Holder



Controllers for Electro Magnetic Chucks

## Special Purpose Machines



Rubber Gasket Cutting Machine



Rubber Shearing Machine



Coolant Bag Filters



Fabrication of Stands with Levelling Adjustment

## Training & Seminars



- ISO 9000 Quality Standards
- ISO / IEC 17025 : 2005
- Six Sigma Overview
- Uncertainty of Measurements
- Statistical quality control and Six Sigma Techniques
- Dimensional Measurements and metrology
- Calibration requirement & dimensional calibration procedure
- Measurement System Analysis
- Fundamental good practice of measuring Instruments
- Product design and development.
- Preventive Maintenance of Instruments
- We can also conduct training for different topics on request
- Project reports and industrial consultation.

## Recognitions Received



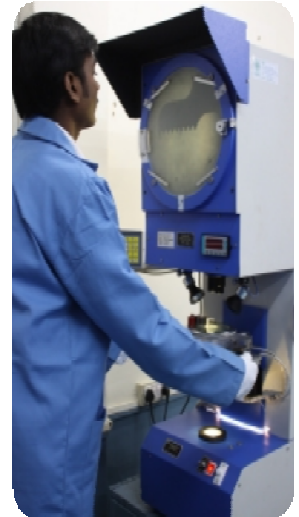
## Many Recognition and Awards



## Calibration Laboratory



- Length upto 1000mm  
(Calipers, Micrometers, Height Gauges, Gauges (all types), V Blocks, etc)
- Angle, Squareness, parallelism, Flatness, co-axiality, straightness
- Hand Torque Tools.
- Surface roughness
- Pressure and Vacuum etc
- Refer to our scope of Calibration for details.



**NABL** NABL Accredited Laboratory